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What is claimed is:

1. Method for producing a contact structure on a structured surface of a substrate, the method comprising:

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producing a first conductive layer on the structured surface, the first conductive layer comprising tungsten;

producing a conductive seed layer on the first layer; and

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electroplating the contact structure on the seed layer.

2. Method as claimed in claim 1, wherein at least a sublayer of the first conductive layer is produced by

15 means of CVD deposition.

3. Method as claimed in claim 1, wherein the substrate includes a semiconductor substrate.

20 4. Method as claimed in claim 3, wherein the semiconductor substrate is a silicon substrate.

5. Method as claimed in claim 1, wherein the structured surface is a surface of an opening in the substrate.

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6. Method as claimed in claim 5, wherein the opening at least in one direction comprises an aspect ratio of greater than or equal to 1:4.

30 7. Method as claimed in claim 5, wherein the opening extends into the substrate in the vertical direction at a depth of greater than or equal to 20 µm.

8. Method as claimed in claim 1, wherein the seed layer

35 comprises a multiple-layer structure.

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9. Method as claimed in claim 8, wherein the seed layer comprises a multiple-layer structure, one or several layers of same comprising a metallic barrier material.
- 5 10. Method as claimed in claim 9, wherein the multiple-layer structure of the seed layer includes a stack comprising barrier metals .
- 10 11. Method as claimed in claim 10, wherein the barrier metals are selected from the group comprising Ta, TaN, Ti, TiN and TiW.
- 15 12. Method as claimed in claim 8, wherein the seed layer comprises a multiple-layer structure, the method further including selectively removing the contact structure, at least one of the layers of the multiple-layer structure of the seed layer acting as a stop layer in the selective removal.
- 20 13. Method as claimed in claim 1, which further includes selectively removing the contact structure, the first conductive layer acting as a stop layer in the selective removal.
- 25 14. Method as claimed in claim 1, wherein the first conductive layer comprises a multiple-layer structure.
- 30 15. Method as claimed in claim 14, wherein the multiple-layer structure of the first conductive layer includes one or multiple metallic barrier layers.
- 35 16. Method as claimed in claim 14, wherein the multiple-layer structure includes an insulating layer which may consist of a multiple stack of insulating layers.
17. Method as claimed in claim 1, wherein the first conductive layer comprises at least one layer which consists only of tungsten or tungsten alloy.

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18. Method as claimed in any of claims 1, which further includes the step of selectively removing material from the reverse side of the substrate, the first conductive layer 5 representing a stop layer in the selective removal.
19. Method as claimed in claim 18, wherein the first conductive layer comprises a multiple-layer structure, at least one of the layers of the multiple-layer structure 10 representing a stop layer for the selective removal of the material of the substrate.
20. Method as claimed in claim 18, wherein the selective removal includes wet chemical etching. 15
21. Method as claimed in claim 1, wherein the structured surface is a surface of a via hole which extends to a reverse side of the substrate in the vertical direction from a front side of the substrate, the method further including 20 the step of a reverse-side removal of material of the substrate.
22. Method as claimed in claim 21, wherein the reverse-side removal of material of the substrate includes etching, 25 wherein the first conductive layer represents a stop layer.
23. Method as claimed in claim 22, wherein, after the selective removal of the material of the substrate, chemical-mechanical polishing is performed, whereby the contact 30 structure is exposed on the reverse side, and a via structure is formed.
24. Method as claimed in claim 23, wherein a conductive connecting layer is deposited on the whole area of the reverse side of the substrate after the reverse side of the 35 contact structure has been exposed.

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25. Method as claimed in claim 23 wherein bumps are formed on the reverse side for electrically connecting the contact structure.